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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/849,517	05/20/2004	Akihiro Sano	H6808.0056/P056	7134
24998 7590 02/12/2008 DICKSTEIN SHAPIRO LLP 1825 EYE STREET NW Washington, DC 20006-5403				
EXAMINER WELLS, NIKITA				
ART UNIT 2881		PAPER NUMBER		
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/849,517

Applicant(s)

SANO ET AL.

Examiner

Nikita Wells

Art Unit

2881

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 November 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-7 and 26-31 is/are allowed.
- 6) ☒ Claim(s) 8-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-85/86)
Paper No(s)/Mail Date 11/06/07, 05/20/04
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

2. Claims 8-25 are rejected under 35 U.S.C. 102(e) as being anticipated by Makarov et al. (2004/0222369 A1).

With respect to claims 8-22, Makarov et al. disclose (Fig. 1, claim 34, [0036, 0037, 0038, 0041, 0092, 0121]) a mass spectroscopy system comprising: an ion source (10) for ionizing a sample; a mass spectroscopy portion for performing a primary mass spectroscopy on an ion obtained by ionizing said sample and performing a secondary mass spectroscopy [0037, 0038], following said primary mass spectroscopy, on a dissociated ion produced by dissociating said ion; an RF power supply for applying an RF voltage [0092, 0121] for eliminating ions that are not analysis objects prior to said primary mass spectroscopy; performing a secondary mass spectroscopy on a dissociated ion produced by dissociating said ion [0092] following said primary mass spectroscopy.

With respect to claims 23-25, Makarov et al. disclose (claim 34 and [0036, 0037, 0038, 0041, 0092, 0099, 0121]) a mass spectroscopy apparatus comprising: an ion source (10) for ionizing a sample; a first database in which a data sequence of an analysis object candidate substance is recorded [0099]; a mass spectroscopy portion for performing a primary mass

spectroscopy on an ion obtained by ionizing said sample and subjecting a dissociated ion produced by the dissociation of the selected analysis object ion to a secondary mass spectroscopy [0092].

Allowable Subject Matter

3. Claims 1-7 and 26-31 are allowed.
4. The following is an examiner's statement of reasons for allowance:

With respect to the independent claims 1 and 6, prior art fails to disclose or make obvious, in combination with other recited features of the claim limitations, a mass spectroscopy system comprising: ionization means for ionizing a substance as an object of measurement for a mass spectrometer; and means for selecting an ion species with a specific mass-to-charge ratio m/z from ions produced by said ionization means and dissociating the same, wherein the selection, dissociation and measurement of the ion species as the measurement object are repeated in a plurality of stages, said mass spectroscopy system further comprising: mass spectroscopy data acquisition means for performing the selection and dissociation of an ion species $n-1$ times ($n \geq 1$, where n is an integer) and acquiring a peak of measurement intensity against the mass-to-charge ratio of the ion that has been selected and dissociated; correspondence determination means for comparing the peak of measurement intensity against the mass-to-charge ratio of the ion that is obtained by the mass spectroscopy data acquisition means with the characteristics data of a certain ion species in order to determine the possibility of correspondence of the ion that has been selected and dissociated to the certain ion species; and next-analysis content determination means for determining the analysis content in an n -th stage

mass spectroscopy based on the result of determination by said correspondence determination means.

The novel aspect of this invention, which is not disclosed in prior art but presented in both of the above mentioned the independent claims, is that the mass spectroscopy data acquisition means for performing the selection and dissociation of an ion species $n-1$ times and acquiring a peak of measurement intensity against the mass-to-charge ratio of the ion that has been selected and dissociated; and next-analysis content determination means for determining the analysis content in an n -th stage mass spectroscopy based on the result of determination by said correspondence determination means.

The dependent claims 2-5 and 26-31 are allowable by virtue of their dependence upon the independent claim 1. The dependent claim 7 is allowable by virtue of its dependence upon the independent claim 6.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Takada et al. (7,057,169 B2 and 2006/0192101 A1) disclose an analyzing method which includes ionizing a sample, dissociating plurality of precursor ions, and deciding if the fragment ions of a predetermined m/z value are present.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nikita Wells whose telephone number is (571) 272-2484. The examiner can normally be reached on 8:30 AM - 5:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Kim can be reached on (571) 272-

2293. The central fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

7. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Nikita Wells/
Primary Examiner, Art Unit 2881

Nikita Wells, Primary Examiner,
Art Unit 2881
January 31, 2008